#### **CALIFORNIA ENERGY COMMISSION**

1516 Ninth Street Sacramento, California 95814

Main website: www.energy.ca.gov



In the Matter of:	) Docket No. 11-IEP-1L
Preparation of the 2011 Integrated Energy Policy Report (2011 IEPR)	) STAFF WORKSHOP ) RE: Role of Alternative and ) Renewable Transportation Fuels

# Staff Workshop on the Role of Alternative Fuels in California's Transportation Energy Future

The California Energy Commission will hold a staff workshop to discuss staff policy analysis conducted to assess the availability and costs of alternative and renewable transportation fuels needed to meet federal and state rules and regulations requiring renewable and low carbon fuel use. The workshop is being held in order to receive comments and input from stakeholders on staff analysis intended to support the 2011 Integrated Energy Policy Report (IEPR). The workshop will be held:

#### **MONDAY, NOVEMBER 14, 2011**

1 p.m.
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
First Floor, Hearing Room A
Sacramento, California
(Wheelchair Accessible)

# **Remote Attendance and Availability of Documents**

**Internet Webcast** - Presentations and audio from this meeting will be broadcast via our WebEx web meeting service. For details on how to participate via WebEx, please see the "Remote Attendance" section toward the end of this notice.

Documents and presentations for this meeting will be available online at:

http://www.energy.ca.gov/2011 energypolicy/index.html

### **Purpose**

At this workshop, Energy Commission staff will present follow-up analysis of scenarios of forecasted transportation energy demand and means of meeting federal and state fuels standards and regulations that were first discussed at the September 9, 2011 Transportation Committee workshop. Among the topics for which stakeholder input is sought are: the impact of alternative assumptions about Renewable Fuels Standards 2 (RFS2) compliance; assumptions about supply, availability, and costs of the low carbon fuels that will be needed to meet the California Low Carbon Fuel Standards (LCFS); feasibility of pathways suggested by the analysis; potential increases in the use of alternative fuel vehicles and development of in-state biofuel production plants; and potential impacts on volumes and timing of petroleum and renewable fuel imports into the state, including assessments of import infrastructure requirements. The Energy Commission staff will release presentation slides and an agenda before the workshop. Staff invites public comment on the methods, inputs, and findings. The following are questions on which staff seeks public comment:

- 1. The minimum annual cellulosic biofuel requirements under the RFS2 may be unrealistic due to insufficient progress in the technology to produce these fuels at competitive prices. How important are cellulosic fuels to obligated parties under the LCFS in terms of portion of overall credits needed for compliance? The RFS2 provision that allows federal mandated use levels to be lowered if supplies are inadequate has been utilized for the last three years. Is it reasonable to assume that this practice will continue? If so, is it also reasonable to assume that the other advanced fuels category should not be increased as compensation for reducing the cellulosic target levels?
- 2. The LCFS scenario analysis conducted by Energy Commission staff indicates significant use of imported and advanced biofuels over the next several years. How realistic are these projections, especially for ethanol from Brazil and Caribbean Basin Initiative countries? When will commercial-scale advanced biofuel production projects come on line in California, how much biofuel will be produced, how much investment capital will be needed, and how can government incentives or other actions stimulate private investment in these projects?
- 3. The ongoing analyses of LCFS scenarios by Energy Commission staff incorporate costs for biofuels that may deter the accumulation of large quantities of excess LCFS credits. Are the cost ranges used in the analysis reasonable for both the biofuel values and the LCFS carbon intensity premiums? How might these biofuel costs change over time, especially for cellulosic fuels? What is the potential consequence for ethanol prices if the blenders' excise tax credit and import tariff are allowed to expire at the end of 2011? How would the presence of an LCFS credit trading platform that provides market-clearing price transparency be beneficial to obligated parties and prospective advanced biofuel producers and investors?

- 4. The Energy Commission has assumed that all electricity use in the transportation sector will generate LCFS credits that will be available for purchase by obligated parties? Is it reasonable to assume that all of this electricity demand from transit use (such as Bay Area Rapid Transit), and home and public charging of electric vehicles will ultimately be quantified and registered for use in the LCFS program? If not, what portion of this transportation sector electricity demand should be assumed in the analysis? How might California Public Utilities Commission (CPUC) activities associated with electricity charging impact the availability of these credits? Is the Energy Commission staff's assumption of compliance with California's Zero Emission Vehicle (ZEV) program reasonable? If not, should a different estimate of electric vehicles be assumed and, if so, based on what rationale? What would be the potential implications for LCFS (how many additional net credits) if the light-duty electric vehicle forecast were doubled or tripled?
- 5. Is the significant growth in E85 demand necessitated by proportional share compliance with the federal RFS2 standards an unrealistic forecast outlook due to fueling infrastructure challenges and potential decline of flexible fuel vehicle availability? Will the anticipated increased use of more expensive lower carbon intensity ethanol in California to meet the LCFS reduce the ability of E85 to be priced low enough to overcome the fuel economy penalty? If so, is it possible that other revenue streams from the sale of LCFS credits or Renewable Identification Number credits could be sufficient to help offset any rise in ethanol costs relative to gasoline? Is it reasonable for the lower cellulosic biofuel forecast developed by the U.S. Energy Information Administration to be used by Energy Commission staff as one of the underlying assumptions of the LCFS analysis?
- 6. Under what circumstances and to what extent can the growth of natural gas fuel use in vehicles significantly displace diesel use in medium and heavy duty vehicles? Can the cost of natural gas compared to petroleum fuels be sustained and eliminate the need for government incentives for natural gas fueling stations and dispensers? How can in-state biomethane sources be developed as transportation fuels and sold at a price to cover production and fueling infrastructure? What barriers impede the development of in-state biomethane sources for use as transportation fuels?
- 7. To what extent can existing or restructured government regulations (such as air district fleet rules or CPUC regulations) and programs (such as Clean Fuels Outlet, AB 118, AB 32 Cap and Trade, Proposition 1B, and Carl Moyer) increase the development and use of alternative fuels and vehicles in California?

# **Background**

As required by Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002), the Energy Commission conducts "assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices". The Energy Commission uses these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the

state's economy, and protect public health and safety. Public Resources Code §§25301(a) and (d) direct the Energy Commission to adopt the *IEPR* every odd-numbered year and in even-numbered years issue an energy policy review to update analyses from the previous *IEPR* or to raise energy issues that have emerged since the previous proceeding.

The Fossil Fuels Office of the Fuels and Transportation Division prepares these forecasts and analyses of the transportation fuels industry and related markets. Transportation energy demand forecasts and analyses support several related energy policy and program activities, including the Alternative and Renewable Fuel and Vehicle Technology Program (Assembly Bill 118, Nuñez, Chapter 750, Statutes of 2007) investment allocation analyses, petroleum use reduction assessments, and assessments of transportation fuel infrastructure requirements. The Energy Commission staff analyzes federal and state regulations and policies, such as the Energy Independence and Security Act of 2007, Renewable Fuels Standards II, AB 1493 greenhouse gas rules, Low Carbon Fuel Standards, and other regulations to determine their effects on demand for petroleum fuels and the need for various renewable fuels and feedstocks. Staff prepares assessments of future petroleum and renewable fuel import, storage, and distribution infrastructure requirements from historical data and projections for transportation fuel demand for California and dependent neighboring states, infrastructure throughput capacity, and refinery distillation and process capacity.

On February 24, 2011, staff held a Joint Committee workshop in Sacramento to present proposed methods, inputs, and assumptions to be used for developing long-term (through 2030) transportation energy demand forecasts. At the Transportation Committee workshop held in Sacramento on May 11, 2011, participants discussed transportation fuel infrastructure challenges including production, delivery, distribution, and storage as well as the adequacy of California's supply of petroleum and alternative fuels. Staff presented its 2011 IEPR subordinate report, "Transportation Energy Forecasts and Analyses for the 2011 Integrated Energy Policy Report" at a Transportation Committee workshop in Sacramento on September 9, 2011. Workshop documents from the February 24, 2011, May 11, 2011, and September 9, 2011 workshops, including transcripts and staff and stakeholder papers and presentations, are available online at: <a href="https://www.energy.ca.gov/2011">www.energy.ca.gov/2011</a> energypolicy/documents/.

#### **Written Comments**

Written comments on the workshop topics must be submitted by 5 p.m. on November 30, 2011. Please include the docket number 11-IEP-1L and indicate "2011 IEPR – LCFS Analysis" in the subject line or first paragraph of your comments.

All filings in the IEPR proceeding may now be done electronically. Please send your comments in either Microsoft Word format or as a Portable Document File (PDF) by electronic mail to [docket@energy.state.ca.us] and copy the technical lead staff at [gstrecke@energy.state.ca.us] or send them on a Compact Disc to:

California Energy Commission Dockets Office, MS-4 Re: Docket No. 11-IEP-1L 1516 Ninth Street Sacramento, CA 95814-5512

Please include your name or organization's name in the name of the file. Signatures may be indicated on electronic copies by embedding a scanned signature graphic, "Original signed by" or similar words, or a scanned copy of the signature page may be appended to the electronic file.

A hardcopy original may also be submitted to the Dockets Office during the workshop comment window. All written materials relating to this workshop will be filed with the Dockets Office and become part of the public record in this proceeding.

## **Public Participation**

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission activities. If you want information on how to participate in this forum, please contact the Public Adviser's Office at (916) 654-4489 or toll free at (800) 822-6228, by FAX at (916) 654-4493, or by e-mail at [PublicAdviser@energy.state.ca.us]. If you have a disability and require assistance to participate, please contact Lou Quiroz at (916) 654-5146 at least five days in advance.

Please direct all news media inquiries to the Media and Public Communications Office at (916) 654-4989, or by e-mail at [mediaoffice@energy.state.ca.us].

If you have questions on the technical subject matter of this forum, please contact Gene Strecker at (916) 654-4537, or by e-mail at [gstrecke@energy.state.ca.us]. For general questions regarding the *IEPR* proceeding, please contact Lynette Esternon Green, *IEPR* Project Manager, by phone at (916) 653-2728 or by e-mail at [lesterno@energy.state.ca.us].

The service list for the 2011 IEPR is handled electronically. Notices and documents for this proceeding are posted to the Energy Commission website at [www.energy.ca. gov/2011\_energypolicy/index.html]. When new information is posted, an e-mail will be sent to those on the energy policy e-mail list server. We encourage those who are interested in receiving these notices to sign up for the list server through the website [www.energy.ca.gov/listservers/index.html].

#### **Remote Attendance**

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## **Computer Log-on with Telephone Audio:**

- 1. Please go to <a href="https://energy.webex.com/">https://energy.webex.com/</a> and enter the unique meeting number: 925 098 223
- 2. When prompted, enter your name other information as directed and the meeting password: **meeting@1** (Please note that password is case sensitive.)

#### Teleconference:

After logging in on the computer, an AUDIO CONFERENCE BOX will offer you the choice of phone connections:

- TO HAVE WEBEX CALL YOU BACK: Type your area code and phone number and click "Call Me".
- 2. TO CALL INTO THE TELECONFERENCE: Use the drop-down box to select "I will call in" and follow the on-screen directions.
- 3. INTERNATIONAL CALLERS: Click on the "Global call-in number" link in part (2) above
- 4. TO LISTEN OVER THE COMPUTER: If you have the needed equipment and your computer is configured, click on "Use Computer Headset" and then "Call Using Computer" to use VoIP (Internet phone)

TELEPHONE ONLY (NO COMPUTER ACCESS): Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number: 925 098 223 International callers can select their number from [https://energy.webex.com/energy/globalcallin.php]

If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239.

DATE: October 31, 2011

Mail Lists: energypolicy, transportation, altfuels